UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

REPLY TO THE ATTENTION OF:

SR-6J



August 22, 1996

Mr. Alan P. Bielawski, Esq.
Sidley & Austin
One First National Plaza
Chicago, Illinois 60603

**Re: Impact of RCRA and TSCA on Remedial Alternatives**
**Lenz Oil Service Site**
**Lemont, Illinois**

Dear Mr. Bielawski:

This letter provides responses to questions raised in your letter of August 7, 1996, regarding the applicability of RCRA and TSCA regulations to the remedial options being considered at the Lenz Oil Superfund site in Lemont, Illinois. Answers to additional questions related to these issues are also provided. The questions from your August 7th letter are restated below; responses follow each question in italic font. A conference call can be scheduled or a follow-up letter can be provided if additional clarification is needed.

Questions Presented by Lenz Oil Respondents in Letter Dated August 7, 1996

- LNAPL-contaminated media: According to U.S. EPA guidance documents, the various Regions have discretion to determine, on a site-specific basis, the level of contamination which may remain in media containing a RCRA listed waste, below which the media will be deemed non-hazardous. In your August 5, 1996 letter, you appear to take the position that LNAPL-contaminated media will not be considered hazardous if the residual level of risk falls below the 10E-04 to 10E-06 target carcinogenic risk range and the 1.0 Hazard Index for non-carcinogenic risks. Are we correct in assuming that these risk assessments may be made after contaminated soils or groundwater are treated to address the listed LNAPL waste?

*For the purposes of Superfund sites, if a RCRA waste is treated to cleanup objectives that result in a residual level of risk that falls below the 10E-04 to 10E-06 target carcinogenic risk range and the 1.0 Hazard Index for noncarcinogenic risks, and if the waste does not exhibit any RCRA characteristics, the waste is no longer considered to be RCRA hazardous. In the case of the Lenz Oil site, where the LNAPL is a listed waste and also has been shown to be RCRA characteristic due to ignitability and toxicity, in order for a waste to no longer be considered to be RCRA hazardous after treatment, the waste would also have to pass the RCRA ignitability test and the RCRA TCLP test. So, both before or after the waste is treated, as long as the waste passes the ignitability and TCLP tests and does not exhibit unacceptable carcinogenic and noncarcinogenic risks, it will not have to be treated as a RCRA waste.*

- Is LNAPL-contaminated soil which is treated to a target risk level below 10E-04, but above 10E-06, considered to be a RCRA-listed waste?

  *The LNAPL-contaminated soil will be considered to be a RCRA waste if the risk posed by the soil exceeds the acceptable risk range set by the Agencies or if the soil fails the RCRA ignitability or TCLP tests. The acceptable carcinogenic risk will be set either at 10E-04 or at 10E-06. For purposes of evaluating remedial alternatives in the revised FS, it should be assumed that the acceptable risk will be the more stringent risk of 10E-06. Again, the soil will also be considered to be a RCRA hazardous waste if it fails the ignitability or TCLP tests.*

- PCB-contaminated soil: If the contamination is primarily due to the presence of PCBs, must such soils be remediated (by treatment or capping) if their PCB concentrations fall beneath TSCA cleanup levels?

  *If PCB levels in soil fall beneath TSCA cleanup levels, this will mean that TSCA regulations will not have to be applied to the situation. If soils contain PCBs below TSCA cleanup levels but the soil still exceeds the acceptable risk range specified by the Agencies, the soils will need to be addressed. If the risk posed by the soil would not fall into the unacceptable range if PCBs were not present, as long as the soil does not exhibit any RCRA characteristics, RCRA regulations will not apply. If, on the other hand, unacceptable risk exists even when risk due to PCBs is excluded, or if the soil exhibits one or more RCRA characteristics, RCRA regulations will apply.*

- Must excavated soils which exceed the 10E-04 to 10E-06 target risk range due to contaminants other than PCBs be treated as hazardous wastes?

  *If the target risk range set by the Agencies is 10E-04, soils posing a risk less than 10E-04 and not exhibiting any RCRA characteristics will not have to be treated as RCRA hazardous. If the acceptable risk range set by the Agencies is 10E-06, these soils would have to be treated as RCRA hazardous waste.*

- PCB-contaminated groundwater: Filtration and other treatment methods may reduce the target risk posed by the groundwater to a level below 10E-04, but above 10E-06. Will such treated groundwater be considered a RCRA-listed waste?

  *Groundwater that is treated will presumably be disposed of either via discharge to a surface water body under an NPDES permit equivalence or disposed of at a POTW. In each case, disposal of the groundwater will be subject to the requirements either under the NPDES permit or as set by the POTW. If groundwater disposed of at a POTW contains RCRA hazardous constituents that pose a risk greater than 10E-06, or if it exhibits a RCRA characteristic, all sludge generated by the POTW in the process of treating the groundwater would be considered a RCRA hazardous waste.*

  *In addition, transport of treated groundwater to the POTW would have to meet RCRA regulations unless it was disposed of directly into a sewer. Transport of treated groundwater to a surface water body for discharge under an NPDES permit would be regulated under either RCRA or CWA.*

- Soil cap: Is a cap (either impermeable or permeable) necessary to cover soils which pose a target risk above 10E-06 but below 10E-04?

  *If the acceptable risk level set by the Agencies is 10E-06 and capping is the remedial component to address the soil, all soil posing a risk greater than 10E-06 and/or failing a RCRA characteristic test would have to be located under the cap. If the acceptable risk level set by the Agencies is 10E-04, it is assumed that capping would not be considered as an option for addressing these limited soil areas. If RCRA constituents in the soil are responsible for the unacceptable risk, or if the soil exhibits one or more RCRA characteristics, a RCRA-compliant cap would be called for unless a RCRA waiver were obtained. Also, if RCRA listed or characteristic waste is left in place at the site, RCRA closure/post-closure requirements will be applicable.*

- Soil risk levels: ERM would like to include a statement in the FS report that, based on an application of TACO procedures, soils located in the proximity of sample SB01 (0 - 5 ft), SB07 (5 - 9 ft), and SB15R (4.5 - 9.5 ft) do not pose a risk to human health and the environment and therefore do not need to be remediated. As you know, PRC calculated a carcinogenic target risk above 10E-04 for these soils based on an overly conservative estimate of inhalation of VOCs from excavated soils. It is our understanding that the Agency would not object to such a statement since the risk calculation under TACO procedures is at least two orders of magnitude lower than the risk calculated by PRC.

  *In order to be consistent, the Baseline Risk Assessment for the Lenz Oil site will be used as the basis for cleanup actions at the site.*

- Definition of "Site": The definition of the boundaries of the "Site" may impact various RCRA requirements associated with intra-site movement of LNAPL-contaminated soil, purge and well development groundwater. Besides the Lenz Oil property itself, for purposes of RCRA, is the property residing above the LNAPL plume (which includes the adjacent property and Jeans Road) considered to be "on-site"?

  *For the purposes of Superfund, we will consider the site to mean those areas where contamination originating from the site has come to be located. This would mean that the adjacent property and the portion of Jeans Road overlying the contamination may be considered to be part of the site.*

Additional Questions

- Soils posing a risk greater than 10E-04: Would incineration of these soils in an off-site incinerator require meeting any RCRA regulations? If soils were treated on-site using thermal desorption, could the residuals be placed back on site, under the CAMU policy, without triggering the LDR/Land Ban/MTR rules? If residuals from the treatment process were shipped off-site for disposal, could they be disposed of in a Subtitle D landfill, or would it have to be a Subtitle C landfill?

  *If the risk posed by soil were due to the RCRA hazardous constituents in it or if the soil is RCRA characteristic, incineration of these soils off-site would have to meet RCRA regulations. However, because the soils do contain PCBs, it is possible that RCRA incinerators may not be willing to accept them, in which case a TSCA incinerator would have to be used.*

  *If soils were treated on-site, and post-treatment sampling showed that no unacceptable risk remained and the soil was not RCRA characteristic, soil could be placed back into the excavation without triggering either LDR rules or requiring documentation of a CAMU. If the levels of RCRA constituents in the soil after treatment still posed an unacceptable risk or if the soil failed any RCRA characteristic tests, the first alternative would be to retreat the soil. If retreatment did not work, soils could be disposed of in a Subtitle C landfill. Also, any contaminated carbon or other media generated to treat off-gas, for example, from the thermal desorption unit would have to be treated as a RCRA hazardous waste, and would either have to be incinerated at a RCRA-compliant landfill or disposed of in a Subtitle C landfill, according to LDRs. In no cases would treated soils have to be shipped to a Subtitle D landfill.*

Same questions (and same answers) for....

- Soils contaminated with LNAPL: Would incineration of these soils in an off-site incinerator require meeting any RCRA regulations? If soils were treated on-site using thermal desorption, could the residuals be placed back on site under the CAMU policy, without triggering the LDR/Land Ban/MTR rules? If residuals from the treatment process

were shipped off-site for disposal, could they be disposed of in a Subtitle D landfill, or would it have to be a Subtitle C landfill?

*Soils that are visibly saturated with LNAPL will need to be treated the same as the LNAPL. This would mean that a TSCA-regulated incinerator would have to be used. If these soils were treated on-site so that the soils no longer posed an unacceptable risk and exhibited no RCRA characteristics, the treated soils could be placed on-site without triggering LDRs or requiring that the "disposal unit" qualify as a CAMU. If, after soils were treated, unacceptable risk was still present due to the RCRA hazardous constituents present, or if soils were RCRA characteristic, the soils would have to be retreated. If retreatment failed, the soil would have to be disposed of in a Subtitle C landfill. Also, any contaminated carbon or other media generated to treat off-gas, for example, from the thermal desorption unit would have to be treated as a RCRA hazardous waste, and would have to either be incinerated or disposed of in a Subtitle C landfill, according to LDRs.*

- Is it correct that in situ treatment of soils using solidification/stabilization (S/S) would not trigger LDRs/MTRs? Would a certain treatment standard have to be attained if the soils were considered to be listed wastes?

  *If soils were treated in situ using S/S, RCRA regulation related to closure/post-closure requirements would need to be considered. In addition, performance standards required by the Agencies would have to be met.*

- Under what circumstances would a provision in the property title or a deed restriction on the property have to be established regarding leaving RCRA-listed waste on site? If residual LNAPL was going to remain on site, what type of deed restriction would this entail? What would the limitations on future property use be?

  *If residual LNAPL remained on site, a deed restriction, as described in RCRA closure/ post-closure requirements, would have to be placed on the property describing the nature and location of the LNAPL. If a future owner of the property wanted to take any action that would disturb the LNAPL, all RCRA requirements would have to be met. For specific requirements on RCRA closure/post-closure deed restriction requirements, CFR Sections 264.116 and 264.119 should be consulted.*

- CAMU Policy: Is this policy still valid? Does a permit application have to be filed with RCRA in order to use this concept at a site? What are the groundwater monitoring requirements for a CAMU?

  *The CAMU policy is currently being reevaluated, and a bill that may replace the statute may be passed in late 1997. However, if an action has been approved (i.e., if a ROD has been signed) before the new bill is passed that is based on the current CAMU policy, the new statute would not affect the decision. If the CAMU concept is used as part of the*

*selected remedy, explanation of how an on-site CAMU would meet the RCRA requirements would be included in the ROD. Groundwater monitoring requirements related to CAMUs are described in 40 CFR 264 Subpart G.*

- What is the Federal Register citation for the CAMU policy?

  *The Federal Register citation is February 16, 1993, p. 8658. The statute was encoded under 40 CFR Subpart S, Section 264. The section that discusses CAMUs is Section 264.552.*

- Would soil at the Lenz Oil site be subject to TSCA regulations?

  *TSCA regulations would not apply to treatment of soils at the Lenz Oil site because levels of PCBs in soil were less than 50 ppm. If future soil sampling at the site showed PCBs present at a level of 50 ppm or greater, TSCA regulations would apply. TSCA clean-up objectives for surface soil <u>are</u> applicable to the Lenz Oil site, i.e., if levels of PCBs in soil from 0 to 10 inches below ground are higher than 10 ppm, the soils must be excavated and disposed of properly and replaced with at least 10 inches of clean soil containing less than 1 ppm PCBs. If soil visibly contaminated with LNAPL is treated on-site via thermal desorption, the system would have to meet the same destruction and removal efficiency (DRE) requirements as specified for incineration of PCBs, for both the treated soil and the after-burner.*

- How will TSCA regulations affect the treatment and/or disposal of the LNAPL at the site?

  *Because the LNAPL at the site contains up to 248 ppm PCBs, it is regulated under TSCA. TSCA regulations require that liquids containing PCBs at concentrations between 50 and 500 ppm be incinerated at a TSCA-regulated incinerator or disposed of in a TSCA-regulated high efficiency boiler. Disposal in a chemical waste landfill would not be permitted due to the characteristic of ignitability exhibited by the LNAPL. If an alternate treatment method such as thermal desorption is selected for treating the LNAPL, the method must ensure destruction of PCBs equivalent to that required for an incinerator or high efficiency boiler, must not present an unreasonable risk of injury to human health or the environment, as determined by the Federal TSCA Program, and must be approved by the Federal TSCA Program. If treatment takes place on site, a TSCA permit would not be required; however, the Federal TSCA Program would review the proposed method to ensure that it meets all substantive requirements of TSCA. If treatment takes place off site, the treatment process used would have to be one that is TSCA-approved. As of this date, USEPA Region 5 has not issued any permits for alternative destruction processes.*

- What TSCA regulations apply if TSCA-regulated waste is left on site?

  *If TSCA waste is left on site, TSCA regulations regarding deed restrictions, ground water monitoring and five-year reviews would apply.*

- What are the CFR citations for TSCA requirements?

  *TSCA regulations can be found in 40 CFR Part 761. Disposal requirements, requirements for incinerators, and requirements for chemical waste landfills are found in §§761.60, 761.70, and 761.75, respectively.*

Please call me at (312) 886-4785 if you have any questions.

Sincerely,

Mary M. Tierney
U.S. EPA

cc: Elsie Millano, ERM-North Central, Inc. (also via facsimile)
John Imse, ERM-North Central, Inc.
Diane Richardson, Commonwealth Edison (also via facsimile)
John Griggs, Commonwealth Edison (also via facsimile)
Jerry Willman, IEPA
Dick McAvoy, BVSPC
Stuart Hersh, USEPA